

What is claimed is:

1. A railway crossing, comprising:
 - a plate;
 - a pair of continuous long beams mounted to the plate;
 - a pair of divided beams, each having three separate, discontinuous segments, mounted to the plate and positioned at a crossing angle with respect to the long beams such that each of the segments abuts at least one of the long beams; and
 - fasteners for securing the long beams and the divided beams to the plate.
2. The railway crossing of claim 1, wherein the plate has a pocket formed therein for receiving the long beams and the divided beams.
3. The railway crossing of claim 2, wherein the pocket has a plurality of protrusions formed therein, and each of the long beams and each of the divided beams has at least one recess that is complementary in shape to the protrusions in the pocket, such that engagement of the recesses by the protrusions resists movement of the long and divided beams along lengths thereof with respect to the plate.
4. The railway crossing of claim 1, wherein each of the segments of the divided beams has a length that is shorter than a length of the long beams.
5. The railway crossing of claim 1, wherein the crossing angle is in the range of 40 degrees to 90 degrees.
6. The railway crossing of claim 1, wherein the segments of each of the divided beams comprise a pair of outer segments located outside of the long beams and in

abutment with one of the long beams, and an inner segment located between the long beams and in abutment with both of the long beams.

7. The railway crossing of claim 6, wherein each of the inner segments has a length that is shorter than a length of either of the outer segments, and wherein the outer segments are equal in length.

8. The railway crossing of claim 6, wherein the inner segments are reversible such that the inner segment of one of the divided beams may be interchangeably positioned with the inner segment of the other of the divided beams, and wherein the outer segments are reversible such that the outer segments of said one of the divided beams may be interchangeably positioned with the outer segments of said the other of the divided beams.

9. The railway crossing of claim 1, wherein the fasteners resist both vertical movement and lateral horizontal movement of the long and divided beams with respect to the plate.

10. The railway crossing of claim 1, wherein each of the fasteners comprises a rail brace assembly having a wedge brace joined to the plate, a clip joined to the wedge brace, and a wedge mounted between the wedge brace, the clip, and one of the long beams and the divided beams, such that the wedge prevents pull-apart of the plate, the long beams, and the divided beams due to thermal forces, mechanical forces, and surface discontinuities.

11. The railway crossing of claim 1, wherein the plate comprises a plurality of plate segments.

12. A railway crossing, comprising:

a plate having a plurality of plate segments and a pocket formed in the plate segments that defines a crossing angle, the pocket having a plurality of protrusions formed therein;

a pair of continuous long beams, each having a base seated in the pocket of the plate;

a pair of divided beams, each having three separate, discontinuous segments, and each of the segments having a base seated in the pocket in the plate and positioned at the crossing angle with respect to the long beams such that each of the segments abuts at least one of the long beams; and

at least one recess formed in each of the bases of the long beams and in each of the bases of the segments of the divided beams, the recesses being complementary in shape to the protrusions in the pocket, such that engagement of the recesses by the protrusions resists movement of the long and divided beams along lengths thereof with respect to the plate; and

fasteners for securing the long beams and the divided beams in the pocket of the plate.

13. The railway crossing of claim 12, wherein each of the segments of the divided beams has a length that is shorter than a length of the long beams.

14. The railway crossing of claim 12, wherein the crossing angle is in the range of 40 degrees to 90 degrees.

15. The railway crossing of claim 12, wherein the segments of each of the divided beams comprise a pair of outer segments located outside of the long beams and in

abutment with one of the long beams, and an inner segment located between the long beams and in abutment with both of the long beams.

16. The railway crossing of claim 15, wherein the inner segment has a length that is shorter than a length of either of the outer segments, and wherein the outer segments are equal in length.

17. The railway crossing of claim 15, wherein the inner segments are reversible such that the inner segment of one of the divided beams may be interchangeably positioned with the inner segment of the other of the divided beams, and wherein the outer segments are reversible such that the outer segments of said one of the divided beams may be interchangeably positioned with the outer segments of said the other of the divided beams.

18. The railway crossing of claim 12, wherein the fasteners resist both vertical movement and lateral horizontal movement of the long and divided beams with respect to the plate.

19. The railway crossing of claim 12, wherein each of the fasteners comprises a rail brace assembly having a wedge brace joined to the plate, a clip joined to the wedge brace, and a wedge mounted between the wedge brace, the clip, and one of the long beams and the divided beams, such that the wedge prevents pull-apart of the plate, the long beams, and the divided beams due to thermal forces, mechanical forces, and surface discontinuities.

20. A railway crossing, comprising:

a plate;

a plurality of long beams mounted to the plate and having a longitudinal length and a lateral width that is transverse thereto;

a plurality of divided beams, each having a plurality of segments, mounted to the plate and positioned at a crossing angle with respect to the long beams, and each of the segments having a longitudinal length and a lateral width that is transverse thereto; and

fasteners for securing the long beams and the divided beams to the plate and resisting both vertical movement and lateral horizontal movement of the long and divided beams with respect to the plate, each of the fasteners comprising a rail brace assembly having a wedge brace joined to the plate, a clip joined to the wedge brace, and a wedge mounted between the wedge brace, the clip, and one of the long beams and the divided beams, such that the wedge prevents pull-apart of the plate, the long beams, and the divided beams due to thermal forces, mechanical forces, and surface discontinuities.

21. The railway crossing of claim 20, wherein the wedge block has a receptacle formed therein with a tapered surface, each of the long beams and the segments of the divided beams has a tapered side wall, the wedge has a tapered knob that is complementary in shape to the receptacle and its tapered surface for engagement therewith, and the wedge has a tapered surface opposite the tapered knob that is complementary in shape to the tapered side walls for engagement therewith; and further comprising:

a serrated cover washer located between the wedge and the clip.

22. The railway crossing of claim 20, wherein the plate has a pocket formed therein for receiving the long beams and the divided beams.

23. The railway crossing of claim 22, wherein the pocket has a plurality of protrusions formed therein, and each of the long beams and each of the divided beams has at least one recess that is complementary in shape to the protrusions in the pocket, such that engagement of the recesses by the protrusions resists movement of the long and divided beams along the longitudinal lengths thereof with respect to the plate.

24. The railway crossing of claim 20, wherein the longitudinal length of each of the segments of the divided beams is shorter than the longitudinal length of the long beams.

25. The railway crossing of claim 20, wherein the crossing angle is in the range of 40 degrees to 90 degrees.

26. The railway crossing of claim 20, wherein the segments of each of the divided beams comprise a pair of outer segments located outside of the long beams and in abutment with one of the long beams, and an inner segment located between the long beams and in abutment with all of the long beams.

27. The railway crossing of claim 26, wherein the longitudinal length of each of the inner segments is shorter than the longitudinal length of either of the outer segments, and wherein the outer segments are equal in length.

28. The railway crossing of claim 26, wherein the inner segments are reversible such that the inner segment of one of the divided beams may be interchangeably positioned with the inner segment of the other of the divided beams, and wherein the outer segments are reversible such that the outer segments of said one of the divided beams

may be interchangeably positioned with the outer segments of said the other of the divided beams.

29. The railway crossing of claim 20, wherein the plate comprises a plurality of plate segments.